



UNITED STATES PATENT AND TRADEMARK OFFICE

Ben
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,289	06/29/2004	Shunji Mackawa	042274	5211

38834 7590 08/30/2006

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

SHAH, MANISH S

ART UNIT	PAPER NUMBER
----------	--------------

2853

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/500,289

Applicant(s)

MAEKAWA ET AL.

Examiner

Manish S. Shah

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2, 4-14 of copending Application No. 10/503059 in view of Breton et al. (# US 5484475).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter claimed in the instant application is disclosed in the co-pending application and is covered by the co-pending application since the co-pending application and the application are claiming common subject matter, as follows as shown in Table: 1 & 2 below.

TABLE: 1

# Copending 10/503,059 CLAIMS	# 10/500,289 CLAIMS
<p>1. An ink for sublimation transfer ink jet recording comprising: at least one sugar alcohol containing not less than four OH groups; at least one sublimation dye selected from the group consisting of a disperse dye and a solvent dye; and an anionic surfactant as a dispersant, wherein the sublimation dye is pulverized into fine particles and has an average particle size of 0.05 to 0.2 μm.</p> <p>2. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sugar alcohol containing not less than four OH groups is at least one member selected from the group consisting of D-sorbitol, xylitol, and maltitol.</p> <p>4. The ink for sublimation transfer ink jet recording according to claim 1, further comprising a nonionic surfactant as the dispersant.</p> <p>5. The ink for sublimation transfer ink recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt % with respect to a total weight of the ink.</p> <p>6. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt %, an amount of the sublimation dye is 0.2 to 12 wt %, and an amount of the dispersant is 0.1 to 20 wt % with respect to a total weight of the ink.</p> <p>7. The ink for sublimation transfer ink jet recording according to claim 1, wherein the ink does not substantially include a water-soluble organic solvent.</p>	<p>1. An ink for sublimation transfer ink jet recording comprising: water; at least one sugar alcohol containing not less than four OH groups; a sublimation dye; a dispersant; and a compound expressed by the following chemical formula: $\text{R}-\text{O}-(\text{CH}_2\text{CH}_2\text{O})_n-\text{H}$ where r is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100.</p> <p>5. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sublimation dye is at least one selected from the group consisting of a disperse dye and a solvent dye.</p> <p>2. The ink for sublimation transfer ink jet recording according to claim 1, wherein the sugar alcohol containing not less than four OH groups is at least one selected from the group consisting of D-sorbitol, xylitol, and maltitol.</p> <p>6. The ink for sublimation transfer ink jet recording according to claim 1, wherein the dispersant is at least one selected from the group consisting of an anionic surfactant, a nonionic surfactant, and a high-molecular surfactant.</p> <p>7. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt % with respect to a total weight of ink.</p> <p>8. The ink for sublimation transfer ink jet recording according to claim 1, wherein an amount of the sugar alcohol containing not less than four OH groups is 0.5 to 50 wt %, an amount of the sublimation dye is 0.2 to 12 wt %, an amount of the dispersant is 0.1 to 20 wt %, and an amount of the compound expressed by the chemical formula (I) is 0.1 to 8 wt % with respect to a total weight of ink.</p> <p>9. The ink for sublimation transfer ink jet recording according to claim 1, wherein the ink does not substantially include a water-soluble organic solvent.</p>

TABLE: 2

# 10/503,059 CLAIMS	# 10/500,289 CLAIMS
<p>8. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 1 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>9. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 2 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>10. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 4 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>11. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 5 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>12. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 6 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>13. A sublimation dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to claim 7 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>14. A method for producing an ink for sublimation transfer ink jet recording according to claim 1, comprising: pulverizing a predispersion at least containing water, an anionic surfactant as a dispersant, and at least one sublimation dye selected from the group consisting of a disperse dye and a solvent dye so that the sublimation dye is formed into fine particles with an average particle size in a range of 0.05 to 0.2 μm; and thereafter, adding sugar alcohol containing not less than four OH groups and/or water, thereby adjusting an ink concentration.</p>	<p>10. A sublimation transfer dyeing method comprising: printing the ink for sublimation transfer ink jet recording according to any one of claims 1 to 9 on a sheet medium by ink jet printing; and heating the sheet medium to sublimate and transfer the sublimation dye onto an object to be dyed.</p> <p>11. A method for producing the ink for sublimation transfer ink jet recording according to claim 1, comprising: pulverizing a predispersion containing at least water, a dispersant, and a sublimation dye so that the sublimation dye is formed into fine particles with an average particle size of 0.05 to 0.2 μm; and thereafter, adding sugar alcohol containing not less than four OH groups, the compound expressed by the chemical formula (1), and water, thereby adjusting an ink concentration.</p>

However, the co-pending application (059) did not claim the ink including a compound expressed by the chemical formula $R-O-(CH_2CH_2O)_n-H$, wherein R is an alkyl group having a carbon number of 25 to 150 and n is from 2 to 100, and having HLB not less than 10 and an amount from 0.1 to 8% by weight.

Breton et al. teaches that to get the high quality print and rapid drying, inkjet ink composition includes a hot melt ink (sublimation) and Ethoxylate alcohols are the general formula $CH_3-(CH_2-CH_2)_x-CH_2-O-(CH_2-CH_2-O)_n-H$, wherein n is 2 to 41 (column: 7, line: 44-50), and having a HLB value 2 to 18 (i.e. Unithox 420, 450, 480, 520, 550, 720 and 750, which is same as the applicant disclose in page: 8 of specification) (column: 7, line: 57-65) and in an amount form 2 to 15% by weight (column: 8, line: 1-6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of pending application by the aforementioned teaching of Breton et al. in order to have a rapid drying ink and high quality print.

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

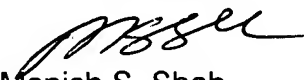
2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

8/23/06